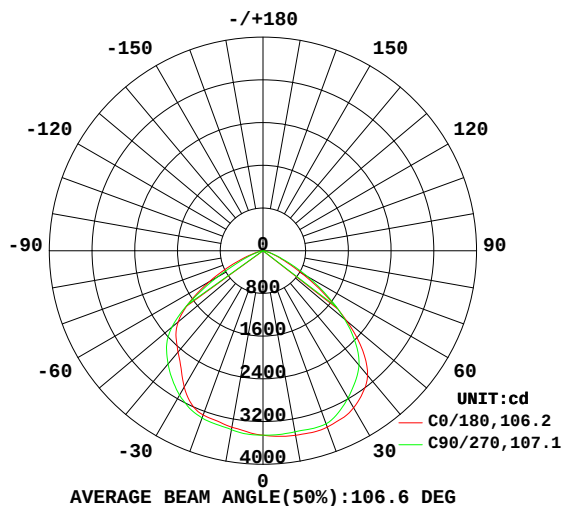


LUMINAIRE PHOTOMETRIC TEST REPORT

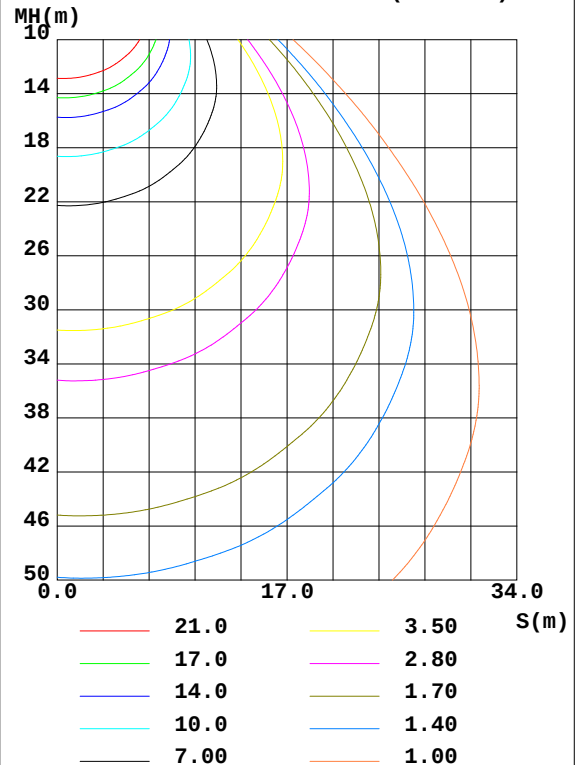
Test:U:220.12V I:0.2946A P:63.575W PF:0.9804 Freq:50.01Hz Lamp Flux:8680.36x1 lm		
NAME:	TYPE:LED	WEIGHT:N/A
SPEC.:N/A	DIM.:	SERIAL No.:N/A
MFR.:	SUR.:	Shielding Angle:N/A

DATA OF LAMP		PHOTOMETRIC DATA Eff: 136.54 lm/W			
MODEL	65W	I _{max} (cd)	3543	S/MH(C0/180)	1.25
NOMINAL POWER(W)	65	LOR(%)	100.0	S/MH(C90/270)	1.34
RATED VOLTAGE(V)	220	TOTAL FLUX(lm)	8680.4	η UP, DN(C0-180)	0.1, 49.9
NOMINAL FLUX(lm)	8680.36	CIE CLASS	DIRECT	η UP, DN(C180-360)	0.1, 49.9
LAMPS INSIDE	1	η up(%)	0.2	CIBSE SHR NOM	1.50
TEST VOLTAGE(V)	220	η down(%)	99.8	CIBSE SHR MAX	1.50

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:24.5DEG
 Operators:William
 Test Date:2020-09-27

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE G0-R5000_V2 SYSTEM V2.0.366
 Humidity:56.4%
 Test Distance:26.000m [K=1.4046]
 Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	3509	3506	3444	3392	3357	3346	3403	3485	0- 10	328.8	328.8	3.79, 3.79
20	3516	3505	3450	3350	3273	3252	3333	3459	10- 20	966.7	1296	14.9, 14.9
30	3397	3394	3186	3043	2949	2910	3124	3335	20- 30	1526	2821	32.5, 32.5
40	3048	2979	2797	2600	2476	2636	2765	2975	30- 40	1871	4693	54.1, 54.1
50	2048	1960	1998	2019	2075	2083	2227	2166	40- 50	1907	6599	76, 76
60	825.4	864.4	957.1	1092	1164	1121	995.3	884.1	50- 60	1368	7967	91.8, 91.8
70	219.7	225.7	260.4	327.4	323.0	273.5	224.3	224.6	60- 70	564.2	8531	98.3, 98.3
80	24.72	25.35	20.98	29.05	35.94	30.59	20.41	27.89	70- 80	125.5	8657	99.7, 99.7
90	0.3002	0.5261	0.4002	0.2419	0.1489	0.0746	0.1493	0.0752	80- 90	5.538	8662	99.8, 99.8
100	0.1489	0.0746	0.0750	0.1504	0.2979	0.3009	0.3755	0.4547	90-100	0.1822	8663	99.8, 99.8
110	0.1489	0.0746	0.1500	0.1504	1.192	1.196	1.278	1.504	100-110	0.4807	8663	99.8, 99.8
120	1.191	1.119	1.125	1.201	2.533	2.465	2.552	2.782	110-120	1.176	8664	99.8, 99.8
130	3.497	2.983	3.596	2.850	3.948	3.363	3.301	3.684	120-130	2.282	8666	99.8, 99.8
140	5.352	4.919	5.918	5.111	5.508	4.408	4.954	4.588	130-140	3.217	8670	99.9, 99.9
150	7.143	7.162	7.422	7.514	6.775	6.347	6.897	6.542	140-150	3.798	8673	99.9, 99.9
160	8.030	8.283	8.392	8.421	8.411	8.283	8.548	8.275	150-160	3.520	8677	100, 100
170	9.079	9.323	9.516	9.321	9.156	9.181	9.447	9.473	160-170	2.457	8679	100, 100
180	10.27	10.07	10.05	10.000	10.05	9.776	10.20	9.924	170-180	0.9242	8680	100, 100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Conical surface Flux(90deg): 5672.5 lm

%lum = 65.3%

%lamp = 65.3%

Conical surface Flux(120deg): 7967.1 lm

%lum = 91.8%

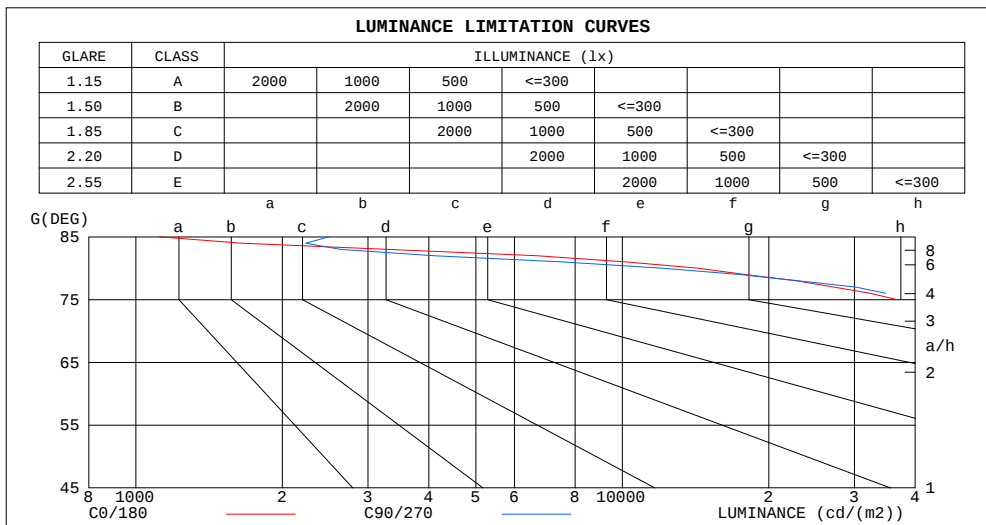
%lamp = 91.8%

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:24.5DEG
Operators:William
Test Date:2020-09-27

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System:EVERFINE G0-R5000_V2 SYSTEM V2.0.366
Humidity:56.4%
Test Distance:26.000m [K=1.4046]
Remarks:

LUMINANCE LIMITATION CURVES

Test:U:220.12V I:0.2946A P:63.575W PF:0.9804 Freq:50.01Hz Lamp Flux:8680.36x1 lm		
NAME:	TYPE:LED	WEIGHT:N/A
SPEC.:N/A	DIM.:	SERIAL No.:N/A
MFR.:	SUR.:	Shielding Angle:N/A



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	1116	2494
80	14300	12070
75	36678	40514
70	64545	76053
65	104182	126360
60	165850	191200
55	244063	255934
50	320164	310549
45	375132	346951

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:24.5DEG
 Operators:William
 Test Date:2020-09-27

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE G0-R5000_V2 SYSTEM V2.0.366
 Humidity:56.4%
 Test Distance:26.000m [K=1.4046]
 Remarks:

WEC AND CCEC

Test:U:220.12V I:0.2946A P:63.575W PF:0.9804 Freq:50.01Hz Lamp Flux:8680.36x1 lm														
NAME:					TYPE:LED					WEIGHT:N/A				
SPEC.:N/A					DIM.:					SERIAL No.:N/A				
MFR.:					SUR.:					Shielding Angle:N/A				

ρ_{CC}	80%			70%			50%			30%			10%			0			
ρ_W	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0			
ρ_{fc}	20%			20%			20%			20%			20%			0			
RCR	RCR:Room Cavity Ratio						Wall Exitance Coeffcients(WEC)												
0.0																			
1.0	.248	.141	.045	.241	.137	.044	.228	.131	.042	.216	.124	.040	.205	.119	.038				
2.0	.244	.134	.041	.238	.131	.040	.227	.126	.039	.216	.121	.038	.206	.117	.037				
3.0	.233	.124	.037	.228	.122	.037	.218	.118	.036	.209	.114	.035	.200	.111	.034				
4.0	.221	.115	.034	.216	.113	.033	.207	.110	.033	.199	.107	.032	.191	.104	.032				
5.0	.208	.106	.031	.204	.105	.031	.196	.102	.030	.189	.100	.030	.182	.097	.029				
6.0	.196	.098	.028	.192	.097	.028	.185	.095	.028	.179	.093	.027	.173	.091	.027				
7.0	.185	.091	.026	.181	.090	.026	.175	.089	.026	.169	.087	.025	.164	.085	.025				
8.0	.174	.085	.024	.171	.084	.024	.166	.083	.024	.160	.081	.023	.155	.080	.023				
9.0	.165	.080	.022	.162	.079	.022	.157	.078	.022	.152	.076	.022	.148	.075	.022				
10.0	.156	.075	.021	.153	.074	.021	.149	.073	.021	.144	.072	.020	.140	.071	.020				

ρ_{CC}	80%			70%			50%			30%			10%			0
ρ_W	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρ_{fC}	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Ceiling Cavity Exitance Coefficients(CCEC)									
0.0	.192	.192	.192	.164	.164	.164	.112	.112	.112	.064	.064	.064	.021	.021	.021	
1.0	.178	.158	.141	.152	.136	.121	.104	.093	.084	.060	.054	.049	.019	.017	.016	
2.0	.167	.134	.105	.143	.115	.091	.098	.080	.064	.057	.046	.037	.018	.015	.012	
3.0	.159	.116	.081	.136	.100	.070	.094	.069	.049	.054	.040	.029	.017	.013	.010	
4.0	.151	.102	.064	.130	.088	.056	.089	.061	.039	.052	.036	.023	.017	.012	.008	
5.0	.145	.091	.052	.124	.079	.045	.085	.055	.032	.050	.032	.019	.016	.011	.006	
6.0	.138	.083	.043	.119	.072	.038	.082	.050	.027	.047	.030	.016	.015	.010	.005	
7.0	.132	.076	.037	.113	.066	.032	.078	.046	.023	.045	.027	.014	.015	.009	.004	
8.0	.126	.070	.032	.108	.061	.028	.075	.043	.020	.044	.025	.012	.014	.008	.004	
9.0	.120	.065	.028	.104	.057	.024	.072	.040	.017	.042	.023	.010	.014	.008	.003	
10.0	.115	.061	.025	.099	.053	.022	.069	.037	.015	.040	.022	.009	.013	.007	.003	

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:24.5DEG
Operators:William
Test Date:2020-09-27

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System:EVERFINE G0-R5000_V2 SYSTEM V2.0.366
Humidity:56.4%
Test Distance:26.000m [K=1.4046]
Remarks:

UGR(Unified Glare Rating) Table

Test:U:220.12V I:0.2946A P:63.575W PF:0.9804 Freq:50.01Hz Lamp Flux:8680.36x1 lm											
NAME:					TYPE:LED			WEIGHT:N/A			
SPEC.:N/A					DIM.:			SERIAL No.:N/A			
MFR.:					SUR.:			Shielding Angle:N/A			
ceiling/cavity	0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3	
walls	0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3	
working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	
Room dimensions		Viewed crosswise					Viewed endwise				
x = 2H y = 2H	2H	31.6	33.0	31.9	33.2	33.4	31.7	33.1	32.0	33.3	33.5
	3H	31.7	33.0	32.0	33.2	33.4	31.9	33.1	32.2	33.4	33.6
	4H	31.7	32.9	32.0	33.1	33.4	31.8	33.0	32.1	33.3	33.5
	6H	31.6	32.7	31.9	33.0	33.2	31.7	32.9	32.1	33.1	33.4
	8H	31.5	32.6	31.9	32.9	33.2	31.7	32.8	32.0	33.0	33.3
	12H	31.5	32.5	31.8	32.8	33.1	31.6	32.7	32.0	33.0	33.3
4H	2H	31.7	32.9	32.0	33.2	33.4	31.8	33.0	32.1	33.2	33.5
	3H	31.9	32.9	32.2	33.2	33.5	32.0	33.0	32.3	33.3	33.6
	4H	31.8	32.8	32.2	33.1	33.4	32.0	32.9	32.3	33.2	33.5
	6H	31.8	32.6	32.1	32.9	33.3	31.9	32.7	32.3	33.0	33.4
	8H	31.7	32.5	32.1	32.8	33.2	31.8	32.6	32.2	33.0	33.3
	12H	31.7	32.4	32.1	32.7	33.1	31.8	32.5	32.2	32.9	33.3
8H	4H	31.7	32.5	32.1	32.8	33.2	31.9	32.6	32.3	33.0	33.4
	6H	31.7	32.3	32.1	32.7	33.1	31.8	32.4	32.2	32.8	33.2
	8H	31.6	32.2	32.1	32.6	33.0	31.8	32.3	32.2	32.7	33.2
	12H	31.6	32.0	32.1	32.5	33.0	31.7	32.2	32.2	32.6	33.1
12H	4H	31.7	32.4	32.1	32.8	33.2	31.8	32.5	32.2	32.9	33.3
	6H	31.6	32.2	32.1	32.6	33.0	31.8	32.3	32.2	32.7	33.2
	8H	31.6	32.0	32.1	32.5	33.0	31.7	32.2	32.2	32.6	33.1
Variations with the observer position at spacings:											
S = 1.0H	+ 1.0 / - 1.2					+ 0.9 / - 1.0					
1.5H	+ 0.6 / - 0.5					+ 0.5 / - 0.8					
2.0H	+ 2.2 / - 3.1					+ 1.7 / - 2.8					

CIE Pub.117, 8680 lm Total Lamp Luminous Flux Corrected ($8\log(F/F_0) = 7.5$)

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:24.5DEG
Operators:William
Test Date:2020-09-27

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System:EVERFINE G0-R5000_V2 SYSTEM V2.0.366
Humidity:56.4%
Test Distance:26.000m [K=1.4046]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:220.12V I:0.2946A P:63.575W PF:0.9804 Freq:50.01Hz Lamp Flux:8680.36x1 lm		
NAME:	TYPE:LED	WEIGHT:N/A
SPEC.:N/A	DIM.:	SERIAL No.:N/A
MFR.:	SUR.:	Shielding Angle:N/A

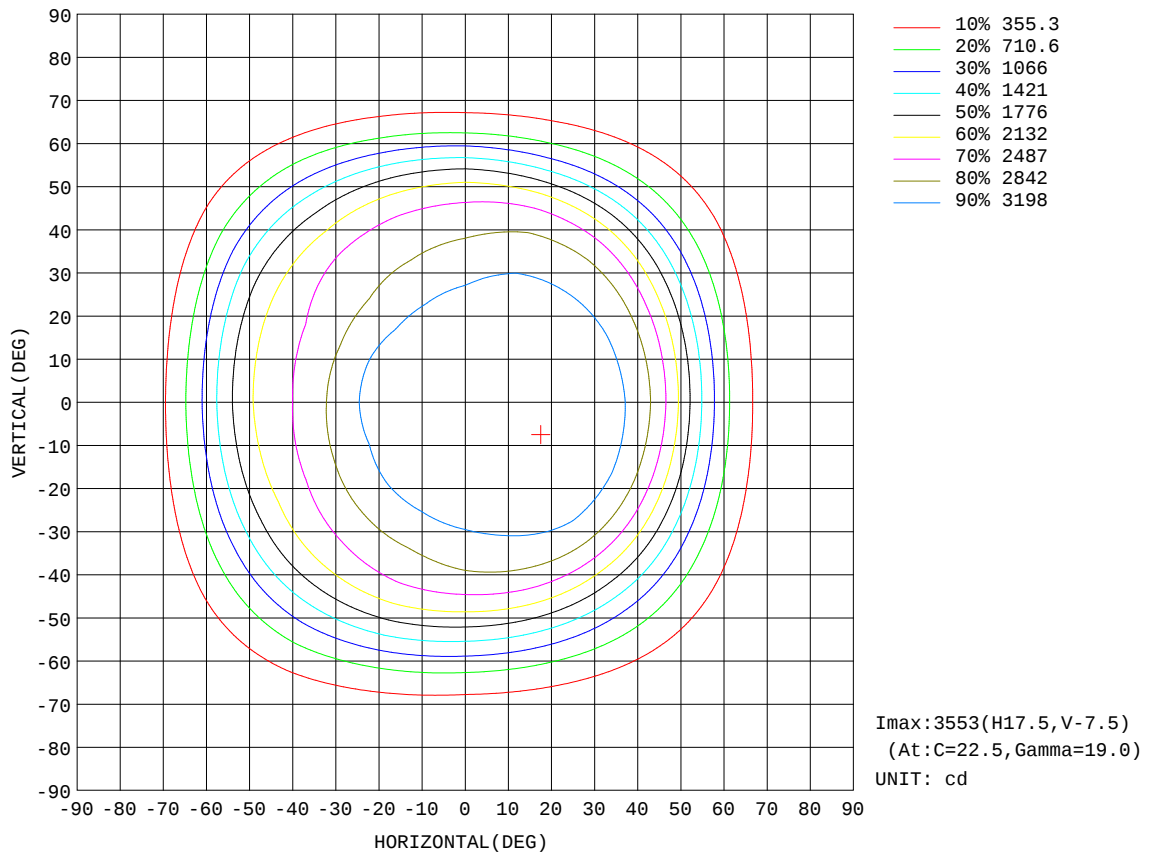
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	62	51	45	61	51	45	60	51	45	39
0.80	73	62	56	72	62	56	70	61	55	49
1.00	82	72	66	81	72	66	79	73	65	59
1.25	89	80	74	88	79	74	85	78	73	66
1.50	94	85	80	92	85	79	89	83	78	71
2.00	100	93	88	98	92	87	95	90	85	78
2.50	103	97	92	101	95	91	97	93	89	81
3.00	106	100	96	104	99	95	100	96	93	85
4.00	109	104	101	107	103	99	103	99	97	88
5.00	111	107	104	108	105	102	104	101	99	90
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:24.5DEG
Operators:William
Test Date:2020-09-27

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System:EVERFINE G0-R5000_V2 SYSTEM V2.0.366
Humidity:56.4%
Test Distance:26.000m [K=1.4046]
Remarks:

ISOCANDELA DIAGRAM

Test:U:220.12V I:0.2946A P:63.575W PF:0.9804 Freq:50.01Hz Lamp Flux:8680.36x1 lm		
NAME:	TYPE:LED	WEIGHT:N/A
SPEC.:N/A	DIM.:	SERIAL No.:N/A
MFR.:	SUR.:	Shielding Angle:N/A

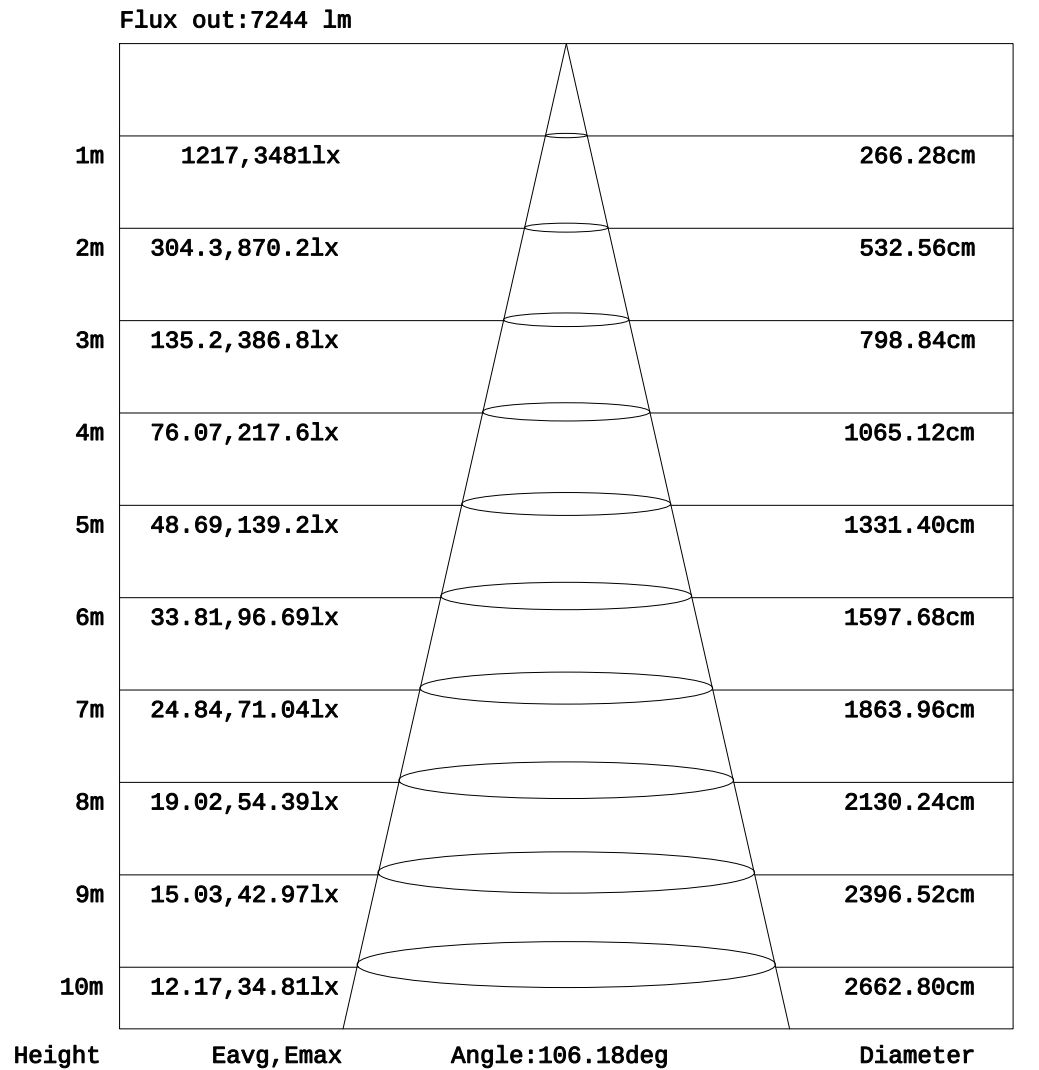


C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 24.5DEG
Operators: William
Test Date: 2020-09-27

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System: EVERFINE G0-R5000_V2 SYSTEM V2.0.366
Humidity: 56.4%
Test Distance: 26.000m [K=1.4046]
Remarks:

AAI Figure

Test:U:220.12V I:0.2946A P:63.575W PF:0.9804 Freq:50.01Hz Lamp Flux:8680.36x1 lm		
NAME:	TYPE:LED	WEIGHT:N/A
SPEC.:N/A	DIM.:	SERIAL No.:N/A
MFR.:	SUR.:	Shielding Angle:N/A

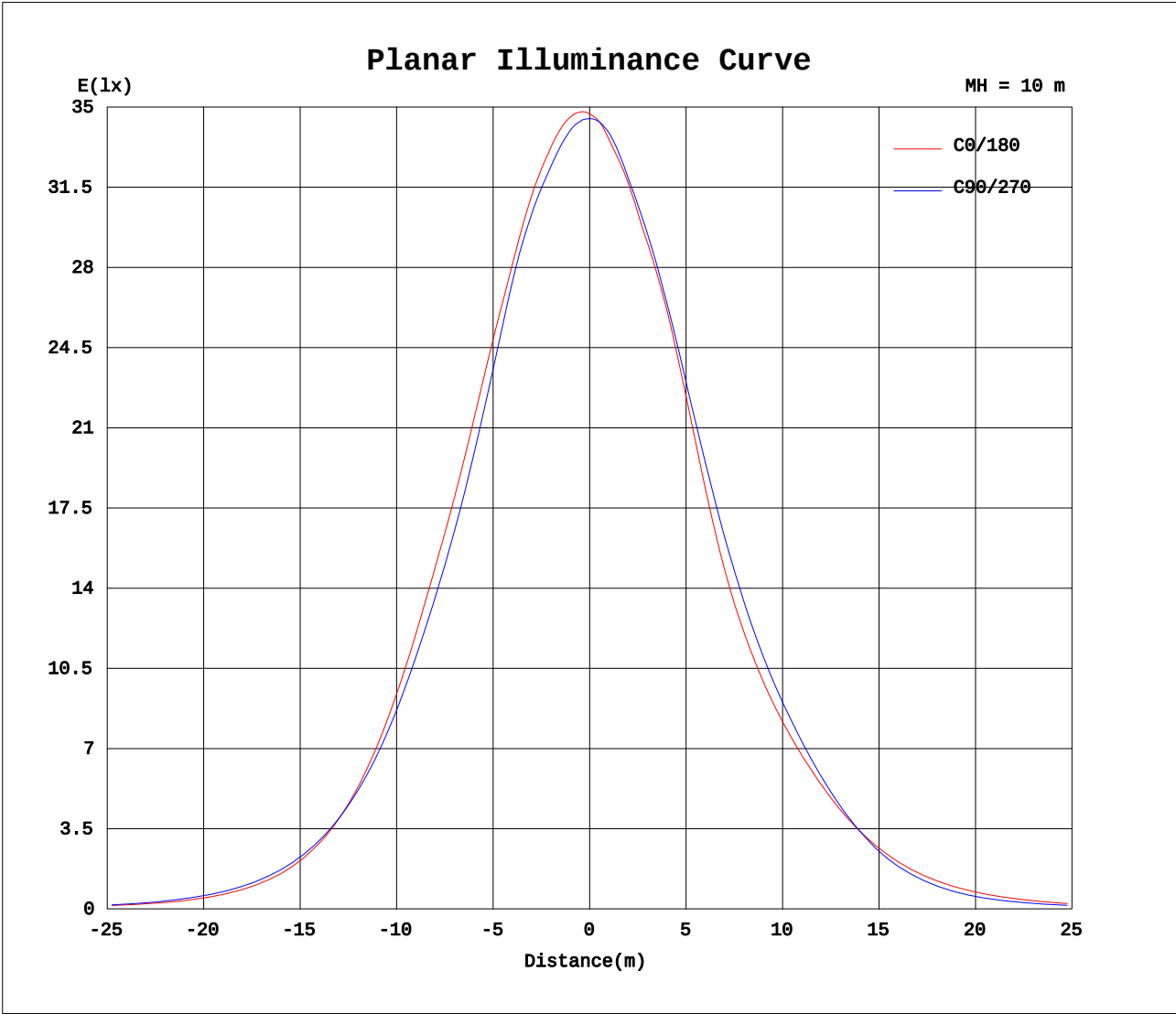


Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:24.5DEG
 Operators:William
 Test Date:2020-09-27

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE G0-R5000_V2 SYSTEM V2.0.366
 Humidity:56.4%
 Test Distance:26.000m [K=1.4046]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:24.5DEG
Operators:William
Test Date:2020-09-27

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE G0-R5000_V2 SYSTEM V2.0.366
Humidity:56.4%
Test Distance:26.000m [K=1.4046]
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:220.12V I:0.2946A P:63.575W PF:0.9804 Freq:50.01Hz Lamp Flux:8680.36x1 lm																	
NAME:									TYPE: LED						WEIGHT: N/A		
SPEC.: N/A									DIM.:						SERIAL No.: N/A		
MFR.:									SUR.:						Shielding Angle: N/A		

Table--1

UNIT: cd

C (DEG) γ (DEG)	0	22.5	45	67.5	90	112.5	135	157.5	180	202.5	225	247.5	270	292.5	315	337.5			
0	3454	3454	3454	3454	3454	3454	3454	3454	3454	3454	3454	3454	3454	3454	3454	3454			
5	3489	3506	3502	3485	3455	3457	3433	3403	3405	3408	3403	3416	3445	3456	3483	3488			
10	3509	3517	3506	3486	3444	3425	3392	3372	3357	3360	3346	3357	3403	3434	3485	3493			
15	3524	3524	3496	3484	3454	3399	3387	3337	3301	3313	3308	3313	3366	3410	3463	3502			
20	3516	3543	3505	3489	3450	3373	3350	3305	3273	3277	3252	3272	3333	3391	3459	3508			
25	3474	3509	3464	3408	3343	3267	3236	3183	3169	3163	3129	3186	3256	3352	3431	3478			
30	3397	3445	3394	3289	3186	3108	3043	2979	2949	2914	2910	3019	3124	3255	3335	3383			
35	3253	3295	3256	3127	3006	2897	2825	2764	2680	2679	2770	2843	2954	3103	3173	3245			
40	3048	3032	2979	2886	2797	2683	2600	2519	2476	2499	2636	2693	2765	2917	2975	3021			
45	2640	2591	2543	2510	2456	2433	2345	2288	2302	2336	2420	2508	2555	2658	2680	2655			
50	2048	1993	1960	1988	1998	2038	2019	2020	2075	2093	2083	2168	2227	2218	2166	2093			
55	1393	1369	1379	1425	1470	1547	1570	1601	1676	1701	1646	1661	1662	1566	1505	1444			
60	825	828	864	911	957	1034	1092	1109	1164	1188	1121	1050	995	915	884	859			
65	438	452	475	498	535	595	665	669	689	685	621	536	492	462	463	463			
70	220	231	226	226	260	290	327	340	323	315	273	241	224	220	225	235			
75	94.5	98.7	91.3	95.4	105	115	123	131	131	130	110	97.2	92.2	91.0	95.1	101			
80	24.7	28.0	25.4	20.1	21.0	26.5	29.1	35.2	35.9	35.4	30.6	23.2	20.4	23.6	27.9	29.7			
85	0.97	1.14	1.28	1.65	2.18	2.04	1.59	1.21	0.15	0.15	0.52	1.41	2.24	1.65	0.96	0.37			
90	0.30	0.30	0.53	0.39	0.40	0.26	0.24	0.31	0.15	0.15	0.07	0.07	0.15	0.15	0.08	0.08			
95	0.15	0.15	0.07	0.07	0.07	0.08	0.15	0.15	0.15	0.15	0.08	0.08	0.15	0.15	0.30	0.15			
100	0.15	0.15	0.07	0.00	0.07	0.08	0.15	0.15	0.30	0.30	0.30	0.37	0.38	0.45	0.45	0.53			
105	0.15	0.15	0.07	0.00	0.07	0.08	0.15	0.15	0.60	0.75	0.75	0.75	0.82	0.90	0.90	0.98			
110	0.15	0.15	0.07	0.00	0.15	0.08	0.15	0.15	1.19	1.13	1.20	1.27	1.28	1.43	1.50	1.58			
115	0.52	0.52	0.37	0.37	0.37	0.15	0.22	0.30	1.86	1.80	1.87	1.80	1.95	1.95	2.11	2.03			
120	1.19	1.12	1.12	1.04	1.12	1.12	1.20	1.12	2.53	2.62	2.46	2.39	2.55	2.56	2.78	2.78			
125	2.30	2.24	2.00	2.16	2.32	2.25	1.95	2.10	3.13	3.22	2.76	2.61	3.08	2.93	3.16	3.08			
130	3.50	3.07	2.98	3.65	3.60	3.07	2.85	3.15	3.95	3.74	3.36	3.22	3.30	3.38	3.68	3.46			
135	3.94	3.74	3.73	4.54	4.34	4.13	3.68	4.27	4.69	4.19	3.81	4.11	4.35	4.06	4.06	4.05			
140	5.35	5.08	4.92	5.68	5.92	6.01	5.11	5.85	5.51	5.02	4.41	4.93	4.95	4.88	4.59	4.65			
145	6.18	6.06	5.97	6.57	6.82	6.83	6.24	6.38	5.96	5.61	5.38	5.98	5.85	5.87	5.49	5.48			
150	7.14	7.10	7.16	7.39	7.42	7.51	7.51	7.28	6.77	6.59	6.35	6.87	6.90	6.69	6.54	6.30			
155	7.59	7.70	7.54	7.84	7.72	8.04	8.27	7.58	7.74	7.41	7.46	7.77	7.73	7.74	7.30	7.28			
160	8.03	8.15	8.28	8.21	8.39	8.49	8.42	8.25	8.41	8.08	8.28	8.59	8.55	8.26	8.28	7.80			
165	8.63	8.53	8.28	8.74	8.70	8.49	8.72	8.70	8.71	8.60	8.73	9.04	9.00	8.79	9.02	8.33			
170	9.08	9.04	9.32	9.48	9.52	9.23	9.32	9.45	9.16	9.20	9.18	9.48	9.45	9.32	9.47	8.93			
175	10.0	9.72	10.1	10.2	10.0	9.92	10.00	9.90	9.97	9.87	9.78	10.0	9.83	9.92	10.00	9.45			
180	10.3	9.80	10.1	10.2	10.0	9.92	10.00	9.83	10.0	10.3	9.78	10.1	10.2	10.1	9.92	9.98			

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 24.5DEG
Operators: William
Test Date: 2020-09-27

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System: EVERFINE G0-R5000_V2 SYSTEM V2.0.366
Humidity: 56.4%
Test Distance: 26.000m [K=1.4046]
Remarks: